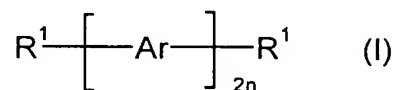


**WHAT IS CLAIMED IS:**

1. Process for preparing compounds of the formula (I),



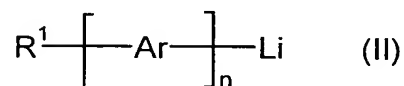
where

n is an integer from 2 to 5,

R<sup>1</sup> is H or a C<sub>1</sub>-C<sub>20</sub>-alkyl group optionally interrupted by one or more O or S atoms, silylene, phosphonoyl or phosphoryl groups and

Ar is substituted or unsubstituted 1,4-phenylene, 2,7-fluorene or 2,5-thiophene, with Ar being able to be identical or different,

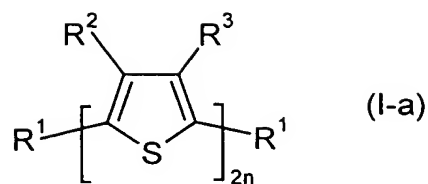
comprising completely dissolving compounds of the formula (II),



where n, R<sup>1</sup> and Ar are as defined for the formula (I),

in an organic solvent or solvent mixture at a temperature of from -100°C to +20°C and coupling with one another at temperatures of from -100°C to +20°C with the aid of one or more copper(II) compound(s).

2. Process for preparing compounds of the formula (I-a),



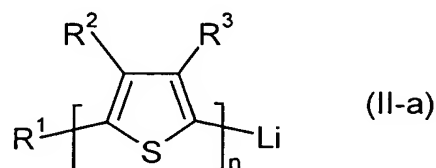
where

$n$  is an integer from 2 to 4,

$\text{R}^1$  is H or a  $\text{C}_1\text{-C}_{20}$ -alkyl group optionally interrupted by one or more O or S atoms, silylene, phosphonoyl or phosphoryl groups and

$\text{R}^2, \text{R}^3$  are each, independently of one another, H or a substituted or unsubstituted  $\text{C}_1\text{-C}_{20}$ -alkyl group, a substituted or unsubstituted  $\text{C}_1\text{-C}_{20}$ -alkoxy group or together form a substituted or unsubstituted  $\text{C}_1\text{-C}_6$ -dioxyalkylene group,

comprising completely dissolving compounds of the formula (II-a)

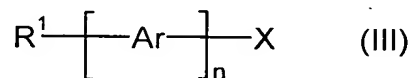


where  $n, \text{R}^1, \text{R}^2$  and  $\text{R}^3$  are as defined for the formula (I-a),

in an organic solvent or solvent mixture at a temperature of from  $-100^\circ\text{C}$  to  $+20^\circ\text{C}$  and coupling with one another at temperatures of from  $-100^\circ\text{C}$  to  $+20^\circ\text{C}$  with the aid of one or more copper(II) compound(s).

3. Process according to Claim 1, characterized in that  $n$  is 2 or 3.

4. Process according to Claim 1, characterized in that R<sup>1</sup> is a C<sub>1</sub>-C<sub>12</sub>-alkyl group.
5. Process according to Claim 2, characterized in that R<sup>2</sup> and R<sup>3</sup> are each, independently of one another, H or a C<sub>1</sub>-C<sub>6</sub>-alkyl group.
6. Process according to Claim 2, characterized in that R<sup>2</sup> and R<sup>3</sup> are each H.
7. Process according to Claim 1, characterized in that alkanes, aromatics or compounds containing ether groups or mixtures of two or more of these compounds are used as solvent.
8. Process according to Claim 1, characterized in that tetrahydrofuran or a mixture of tetrahydrofuran with alkanes is used as solvent.
9. Process according to Claim 1, characterized in that the compounds of the formula (II) are prepared by reacting compounds of the formula (III),



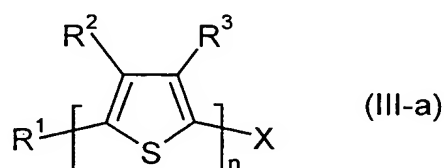
where n, R<sup>1</sup> and Ar are as defined in Claim 1, and  
X is H, Cl, Br or I,

with an organolithium compound at a temperature of from -100°C to +20°C in an organic solvent,

where the resulting reaction mixture is stirred further, optionally at or after heating to a temperature of from  $-20^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$ , and is subsequently cooled back down to a temperature of from  $-100^{\circ}\text{C}$  to  $+20^{\circ}\text{C}$  and

5 the copper(II) compound is added without further work-up.

10. Process according to Claim 9, characterized in that the compounds of the formula (III) are compounds of the formula (III-a),



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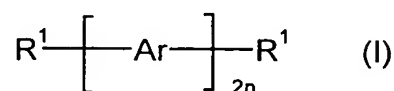
where  $n$ ,  $R^1$ ,  $R^2$  and  $R^3$  are as defined in Claim 1, and

X is H, Cl, Br or I.

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11. Process according to Claim 9, characterized in that the organolithium compound is a lithium amide, or a complexed or uncomplexed alkyllithium compound.
- 20 12. Process according to Claim 1, characterized in that the copper(II) compound is a copper(II) halide, a copper(II) salt of a carboxylic acid or sulphonic acid, or a copper(II) alkoxide.
- 25 13. Process according to Claim 1, characterized in that the reaction mixture is stirred further at temperatures of from  $-80^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$  to complete the coupling reaction.

14. Layers comprising compounds of the formula (I)

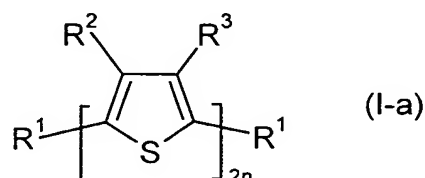


5 where n, R<sup>1</sup> and Ar are as defined in Claim 1 to 4,

characterized in that they contain 0.5% by weight or less of chlorine and are semiconductive.

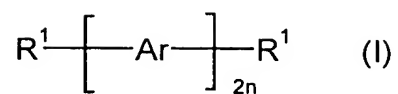
- 10 15. Layers according to Claim 14, characterized in that they contain 0.3% by weight or less of chlorine.

16. Layers according to Claim 14, characterized in that the compounds of the formula (I) are compounds of the formula (I-a),



15 where n, R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are as defined in Claim 1.

- 20 17. A process for preparing active and light-emitting electronic components comprising incorporating layers according to Claim 14 as semiconductors.
18. Process for producing the layers as claimed in Claim 14, characterized in that compounds of the formula (I),

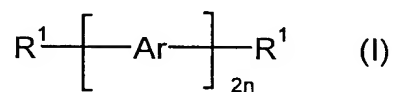


where n, R<sup>1</sup> and Ar are as defined in Claim 1,

5 are applied from solution or from the gas phase to a suitable substrate.

19. Process according to Claim 18, characterized in that the compounds of the formula (I) are applied from the gas phase.

10 20. Compounds of the formula (I)



where n, R<sup>1</sup> and Ar are as defined in Claim 1,

characterized in that they contain 0.5% by weight or less of chlorine.

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